Gulf of Mexico Harmful Algal Bloom Bulletin

13 December 2007

NOAA Ocean Service

NOAA Satellites and Information Service

Last bulletin: December 10, 2007

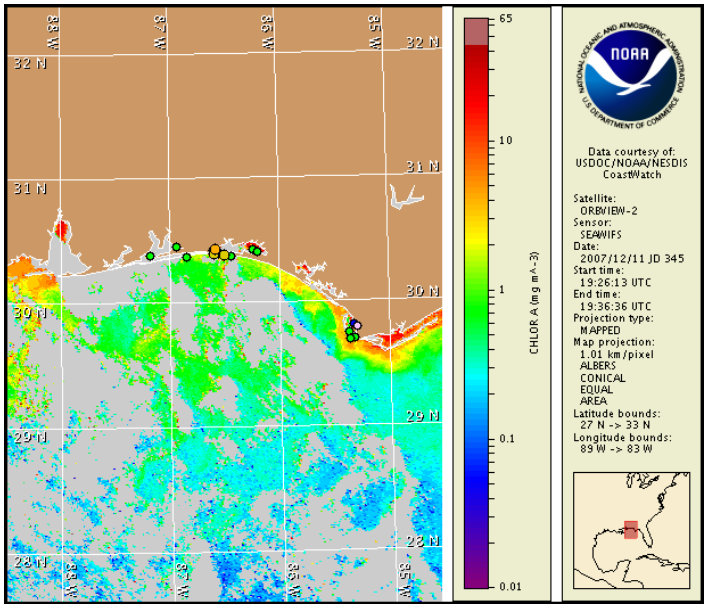
Conditions Report

A harmful algal bloom has been identified in patches from Gulf County, Florida to Hancock County, Mississippi. Patchy very low impacts are possible in bay regions of Gulf County, Florida today through Sunday. Patchy moderate impacts are possible for bay regions of Okaloosa County, Florida through Sunday. Patchy very low impacts are possible today and Saturday in Hancock County, Mississippi, and Mobile and Baldwin Counties, Alabama, with no impacts expected Friday or Sunday. Patchy low impacts are possible for coastal Okaloosa County, Florida today and Saturday, with patchy very low impacts possible today and Sunday. No other impacts are expected in northwest Florida, Alabama, or Mississippi through Sunday, December 16.

Analysis

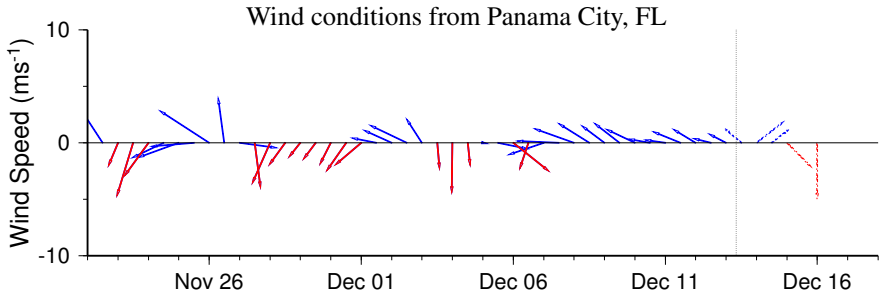
The harmful algal bloom persists in patches along the coasts of Mississippi, Alabama, and the Florida panhandle. Samples collected this week off the coast of Hancock County, Mississippi confirmed very low concentrations of *Karenia brevis* (12/10, Alabama Department of Public Health). *K. brevis* was also present in background concentrations in Alabama north of Dauphin Island in Mobile County. Based on satellite imagery from 12/11, chlorophyll levels are elevated (4-6μg/L) in Florida along the coast of Gulf and Bay Counties from 30°2’29"N 85°36’30"W to 29°37’31"N 85°22’51"W, just south of Cape San Blas, as well as west of Panama City in small patches centered at 30°4’23"N 85°49’35"W, 30°8’13"N 85°49’29"W, and 30°9’28"N 85°56’58"W. High chlorophyll levels (>10μg/L) are visible along the southern coast of Franklin County from 29°40’37"N 85°14’39"W to 29°35’54"N 85°1’5"W. Sampling is recommended in these areas. Southerly winds today and Saturday may increase the potential for impacts along the coast. Continued slight westward transport of the bloom is possible through Sunday.

- Allen, Keller



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from December 3 to 11 shown as red (high), orange (medium), yellow (low b), brown (low a), blue(very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HABFS bulletin guide:

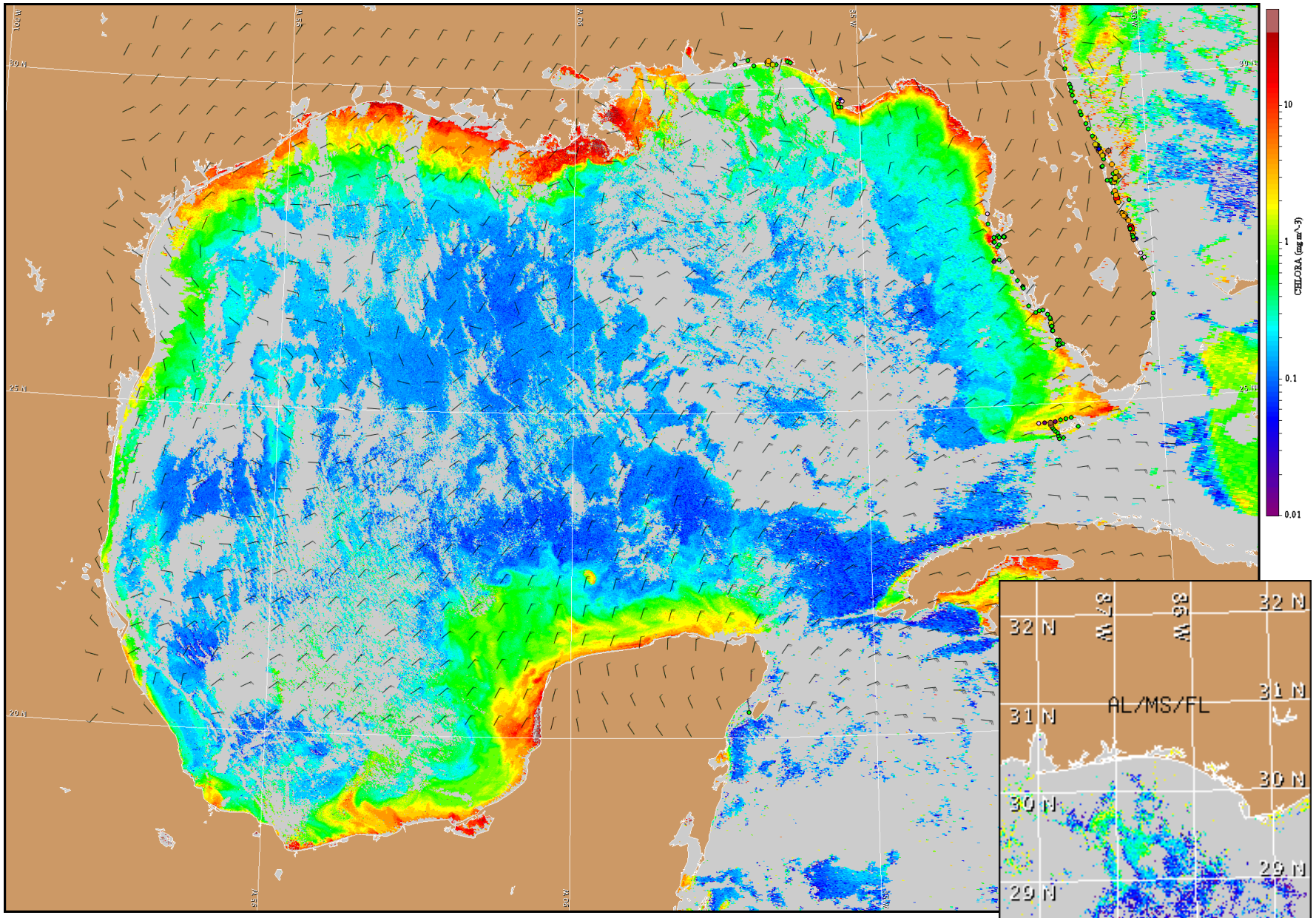
http://www.csc.noaa.gov/crs/habf/habfs_bulletin_guide.pdf



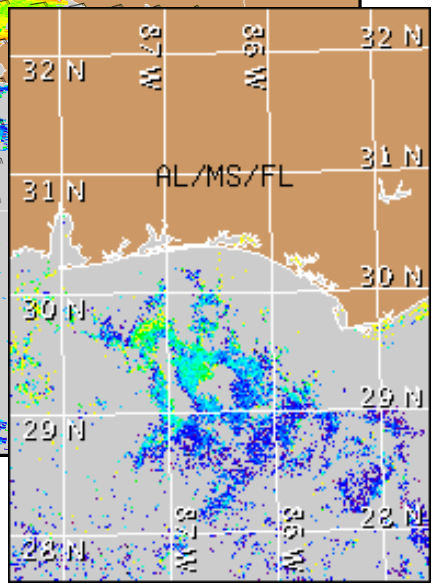
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.

NW Florida & Alabama: Southerly winds today at 5-10 knots (3-5 m/s) becoming north to northeasterly Friday. Southeasterly winds Saturday at 15 knots (8 m/s) becoming southwesterly Saturday night and northerly Sunday at 20-25 knots (10-13 knots).

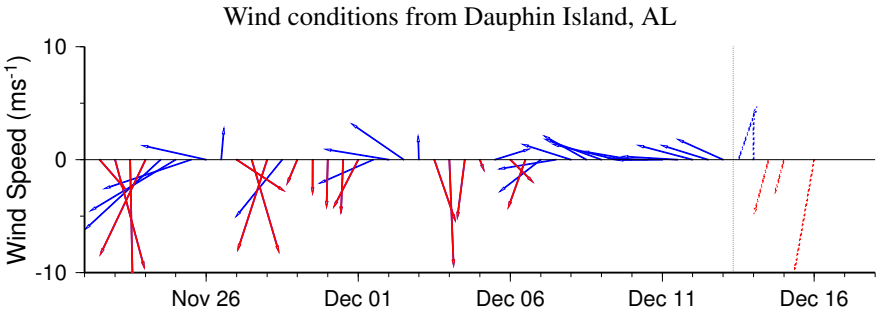
Mississippi: Southwesterly winds today at 5-10 knots (3-5 m/s) becoming northwesterly this afternoon and northeasterly tonight at 10-15 knots (5-8 m/s). Easterly winds Friday becoming southeasterly Friday night and southerly Saturday at 15-25 knots (8-13 m/s). Northerly winds Sunday.



Satellite chlorophyll image and forecast winds for December 14, 2007 12Z with Cell concentration sampling data from December 3 to 11 shown as red (high), orange (medium), yellow (low b), brown (low a), blue(very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HABFS bulletin guide: http://www.csc.noaa.gov/crs/habf/habfs_bulletin_guide.pdf



Verifi ed and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).


Wind conditions from Dauphin Island, AL
Wind Speed (ms-1)
10
0
-10
Nov 26
Dec 01
Dec 06
Dec 11
Dec 16